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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/734,917	12/13/2000	Brian Gerard Goodman	TUC920000080US1	5184

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EXAMINER	
RAMPURIA, SATISH	

ART UNIT	PAPER NUMBER
2191	

DATE MAILED: 04/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/734,917	GOODMAN, BRIAN GERARD	
	Examiner	Art Unit	
	Satish S. Rampuria	2191	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 November 2004 [RCE]*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-35* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-35* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This action is in response to the application filed on 12/13/2000.

2. Claims 1-35 are pending.

3. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on Nov 15, 2004 has been entered.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-6, 9-20, 22-29, 30, and 32-35 are rejected under 35 U.S.C. 103(a) unpatentable over US Patent No. 6,023,727 to Barrett et al. (hereinafter called Barrett) in view of US Patent No. 6,269,396 to Shah et al. (hereinafter called Shah).

Per claims 1, 19, and 35:

Barrett discloses:

- ***A multi-node network of processors*** (col. 1, lines 32-33 "connected to more than one network-LAN" and 23-24 "col. 1, lines 23-24 "network communication devices" see Fig. 1) comprising:
- ***a network*** (col. 1, lines 23-24 "network communication" see Fig. 1);
- ***a plurality of processors coupled in said network*** said processors processors having a minimally operational state (col. 1, lines 35-36 "LAN... connected ... several reprogrammable network communication devices" see Fig. 1); and having a fully operational state employing a code image; said processors, when in said minimally operational state, ***requesting said code image from said network*** (col. 16, lines 8-9 "network administrator's PC 103, the network administrator can remotely alter the ROM firmware image in flash EPROM 174 by downloading new data" and col. 8, lines 45-46 "The program respond to requests... for data download");
- ***and a master source coupled in said network*** (col. 16, line 13 "A... PC... connected to more than one LAN"), said master source having at least said ***code image for broadcasting said code image on said network*** (col. 16, lines 7-9 "network administrator's PC (master source code)... remotely alter the ROM firmware image in flash EPROM"), ***upon receiving said code image request waiting a predetermined time period, said predetermined time period allowing any additional said processor to reach said minimally operational state*** (col. 10, lines 57-60 "NEB microprocessor 173 stops writing to memory (and accordingly stops reading and updating the pointers) at predetermined intervals, allowing printer interface microprocessor 151 sole access to the

memory until it catches up"), ***broadcasting said code image on said network*** (col. 16, line 36 "proper image is sent to the targeted NEB").

Barrett does not explicitly disclose said minimally operational state absent a code image to required to become e fully operational, said minimally operational state sufficient to provide a code image request.

However, Shah discloses in an analogous computer system said minimally operational state (col. 22, lines 32-33 "brings up the server node to minimally operational state (OS_MIN") absent a code image to required to become fully operational, said minimally operational state sufficient to provide a code image request (col. 22, lines 46-54 "Brings up server... fully operational state... form a minimal operational state... Enable/Disable... processing... server node").

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the method of bringing up server minimal operational state or fully operational state to enable/disable the processing as taught by Shah into the method of distributing the code image as taught by Barrett. The modification would be obvious because of one of ordinary skill in the art would be motivated have minimal/fully operational state in the network environment to provide a network manager a tool to remove nodes from service, restore nodes to service, remove applications from service etc. as suggested by Barrett (col. 1-2, lines 60-67 and 1-13).

Per claims 2 and 20, the rejection of claims 1 and 19 is incorporated respectively, and further Barrett discloses:

- ***receive and implement said code image*** (col. 16, lines 31-32 "The flash EPROM on board then reprograms itself with the new image").

Barrett does not explicitly disclose said minimally operational state.

However, Shah discloses in an analogous computer system said minimally operational state (col. 22, lines 32-33 "brings up the server node to minimally operational state (OS_MIN")

The feature of minimally operational state would be obvious for the reasons set forth in the rejection of claim 1.

Per claims 3, 4, the rejection of claim 1 is incorporated and further Barrett discloses:

- ***a non-volatile memory for storing*** (col. 7, line 24-27 "non-volatile random access memory (NVRAM)... used for initialization data storage during power cycling of printer 102 which houses NEB 101").

Barrett does not explicitly disclose said minimally operational state.

However, Shah discloses in an analogous computer system said minimally operational state (col. 22, lines 32-33 "brings up the server node to minimally operational state (OS_MIN")

The feature of minimally operational state would be obvious for the reasons set forth in the rejection of claim 1.

As per claim 5, the rejection of claim 3 is incorporated and further Barrett discloses:

- ***conduct at least a basic system test and provide said code image request*** (col. 8, lines 61-64 "POST is a power-on self-test module that checks the integrity of NEB hardware and software at power-up").

Barrett does not explicitly disclose said minimally operational state.

However, Shah discloses in an analogous computer system said minimally operational state (col. 22, lines 32-33 "brings up the server node to minimally operational state (OS_MIN")

The feature of minimally operational state would be obvious for the reasons set forth in the rejection of claim 1.

As per claim 6, the rejection of claim 1 is incorporated and further Barrett discloses:

- ***a RAM for, upon receiving said code image, storing said code image*** (col. 2, lines 2-3 "A random access memory stores a new program image for the reprogrammable read only memory").

Per claims 9 and 22, the rejection of claims 1 and 19 is incorporated respectively, and further Barrett discloses:

- ***image is correct for said processor and select said broadcast code image for implementation if said determination determines that said code image is correct for said processor*** (col. 17, lines 3-4 "microporcessor... downloads the new image into

DRAM... confirms that the new program image is compatible ... configuration information... reprogram... ERPOM... only... compatibility is confirmed").

Claim 10 is the method claim corresponding to system claim 1 and rejected under the same reason set forth in the connection of the rejection of claim 1 above.

Claim 11 is the method claim corresponding to system claim 2 and rejected under the same reason set forth in the connection of the rejection of claim 2 above.

Claim 12 is the method claim corresponding to system claim 3 and rejected under the same reason set forth in the connection of the rejection of claim 3 above.

Claim 13 is the method claim corresponding to system claim 4 and rejected under the same reason set forth in the connection of the rejection of claim 4 above.

Claim 14 is the method claim corresponding to system claim 5 and rejected under the same reason set forth in the connection of the rejection of claim 5 above.

Claim 15 is the method claim corresponding to system claim 6 and rejected under the same reason set forth in the connection of the rejection of claim 6 above.

Claim 16 is the method claim corresponding to system claim 7 and rejected under the same reason set forth in the connection of the rejection of claim 7 above.

Claim 17 is the method claim corresponding to system claim 8 and rejected under the same reason set forth in the connection of the rejection of claim 8 above.

Claim 18 is the method claim corresponding to system claim 9 and rejected under the same reason set forth in the connection of the rejection of claim 9 above.

As per claim 23, Barrett discloses:

- ***For a multi-node network of processors*** (col. 1, lines 32-33 "connected to more than one network-LAN" and 23-24 "col. 1, lines 23-24 "network communication devices" see Fig. 1) ***said network having a master source coupled in said network*** (col. 16, line 13 "A... PC... connected to more than one LAN"), ***said master source having a code image for broadcasting on said network*** (col. 16, lines 7-9 "network administrator's PC (master source code... remotely alter the ROM firmware image in flash EPROM"), ***said master source, upon receiving said code image request, waiting a predetermined time period, said predetermined time period allowing any additional processor to reach*** said minimally operational state (col. 10, lines 57-60 "NEB microprocessor 173 stops writing to memory (and accordingly stops reading and updating the pointers) at predetermined intervals, allowing printer interface microprocessor 151 sole access to the memory until it catches up"), and, upon completion of said predetermined time period, ***broadcasting said requested code image on said network*** (col. 16, line 36 "proper image is sent to the targeted NEB"), a processor comprising:
- ***a processor interface coupling said processor in said network*** (col. 3, lines 40-42 "NEB 101 is coupled to local area network (LAN) 100 through a LAN interface");
- ***a non-volatile memory for Storing code providing*** a minimally operational state of said processor (col. 7, line 24-27 "non-volatile random access memory (NVRAM)... used for initialization data storage during power cycling of printer 102 which houses NEB 101");

- ***a processor memory capable of storing a code image*** providing a fully operational state of said processor (col. 2, lines 2-3 "A random access memory stores a new program image for the reprogrammable read only memory"); and
- ***and a processing unit coupled to said non-volatile memory*** (col.7, line 24, "NEB control logic... interfaces with non-volatile random access memory"), ***said processor memory and said processor interface,*** when in said minimally operational state ***provided by said non-volatile memory, requesting said code image from said network*** (col. 16, lines 8-9 "network administrator's PC 103, the network administrator can remotely alter the ROM firmware image in flash EPROM 174 by downloading new data" and col. 8, lines 45-46 "The program respond to requests... for data download"), ***via said processor interface*** (col. 3, lines 40-42 "NEB 101 is coupled to local area network (LAN) 100 through a LAN interface").

Barrett does not explicitly disclose said minimally operational state absent a code image to required to become e fully operational, said minimally operational state sufficient to provide a code image request.

However, Shah discloses in an analogous computer system said minimally operational state (col. 22, lines 32-33 "brings up the server node to minimally operational state (OS_MIN") absent a code image to required to become fully operational, said minimally operational state sufficient to provide a code image request (col. 22, lines 46-54 "Brings up server... fully operational state... form a minimal operational state... Enable/Disable... processing... server node").

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the method of bringing up server minimal operational state or fully operational state to enable/disable the processing as taught by Shah into the method of distributing the code image as taught by Barrett. The modification would be obvious because of one of ordinary skill in the art would be motivated have minimal/fully operational state in the network environment to provide a network manager a tool to remove nodes from service, restore nodes to service, remove applications from service etc. as suggested by Barrett (col. 1-2, lines 60-67 and 1-13).

As per claim 24, the rejection of claim 23 is incorporated and further Barrett discloses:

- ***receive and implement said code image*** (col. 16, lines 31-32 "The flash EPROM on board then reprograms itself with the new image").

However, Shah discloses in an analogous computer system said minimally operational state (col. 22, lines 32-33 "brings up the server node to minimally operational state (OS_MIN")

The feature of minimally operational state would be obvious for the reasons set forth in the rejection of claim 1.

As per claim 25, the rejection of claim 23 is incorporated and further Barrett discloses:

- ***a non-volatile memory for storing*** said minimally operational state code (col. 7, line 24-27 "non-volatile random access memory (NVRAM)... used for initialization data storage during power cycling of printer 102 which houses NEB 101").

However, Shah discloses in an analogous computer system said minimally operational state (col. 22, lines 32-33 "brings up the server node to minimally operational state (OS_MIN")

The feature of minimally operational state would be obvious for the reasons set forth in the rejection of claim 1.

As per claim 26, the rejection of claim 25 is incorporated and further Barrett discloses:

- minimally operational state ***is additionally sufficient to conduct at least a basic system test and provide said code image request*** (col. 8, lines 61-64 "POST is a power-on self-test module that checks the integrity of NEB hardware and software at power-up").

However, Shah discloses in an analogous computer system said minimally operational state (col. 22, lines 32-33 "brings up the server node to minimally operational state (OS_MIN")

The feature of minimally operational state would be obvious for the reasons set forth in the rejection of claim 1.

Per claim 27, the rejection of claim 23 is incorporated and further Barrett discloses:

- ***a RAM for, upon receiving said code image, storing said code image*** (col. 2, lines 2-3 "A random access memory stores a new program image for the reprogrammable read only memory").

Claim 30 is the computer product claim corresponding to system claim 1 and rejected under the same reason set forth in the connection of the rejection of claim 1 above.

Claim 32 is the computer product claim corresponding to system claim 9 and rejected under the same reason set forth in the connection of the rejection of claim 9 above.

Claim 33 is the method claim corresponding to system claim 1 and rejected under the same reason set forth in the connection of the rejection of claim 1 above.

Claim 34 is the computer product claim corresponding to system claim 33 and rejected under the same reason set forth in the connection of the rejection of claim 33 above.

7. Claims 7, 8, 21, 28, 29, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barrett in view of Shah and further in view of Harmer et al., hereinafter called Harmer, US Patent No. 6,401,198.

Per claims 7, 8, 21, 28, and 29, the rejection of claims 1, 19, and 23 is incorporated respectively, and further, neither Barrett nor Shah explicitly discloses code image is a combination of different images.

However, Harmer discloses one code image contains multiple code images (col. 10, lines 11-12 "one code image making up the first portion... and second portion... of .... BIOS" and col. 10, lines 14-17 "BIOS... include multiple images... each... images corresponding to a different... computer architecture... device... attached").

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the method of having one code image with different images included as taught by Harmer into the method of distributing the code image as taught by the combination system of Barrett and Shah. The modification would be obvious because of one of ordinary skill in the art would be motivated to include several code images into one code

image to update or upgrade or download code for the devices connected on the network as suggested by (col. 4-5, lines 57-67 and 1-21).

Claim 31 is the computer product claim corresponding to system claim 8 and rejected under the same reason set forth in the connection of the rejection of claim 8 above.

Response to Arguments

6. Applicant's arguments with respect to claims 1-35 have been considered but are moot in view of new ground(s) of rejection.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Satish S. Rampuria** whose telephone number is **(571) 272-3732**. The examiner can normally be reached on **8:30 am to 5:00 pm** Monday to Friday except every other Friday and federal holidays. Any inquiry of a general nature or relating to the status of this application should be directed to the **TC 2100 Group receptionist: 571-272-2100**

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Tuan Q. Dam** can be reached on **(571) 272-3695**. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Satish S. Rampuria
Patent Examiner
Art Unit 2191
4/18/2005

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